

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered). Please AMEND claim 1 and CANCEL claim 2, without prejudice or disclaimer, in accordance with the following:

1. (CURRENTLY AMENDED) An adaptive recording method used with an optical recording medium, the method comprising:

forming a mark using a multiple pulse train comprising a first pulse, a multi-pulse having a peak power level, and a last pulse;

controlling power levels of the first and last pulses with respect to the peak power level of the multi-pulse depending on a correlation between a mark and a space between successive marks;

setting the power level of the first pulse depending on the correlation between the mark and the space;

setting the power level of the last pulse depending on the correlation between the mark and the space, wherein the power level of the last pulse is set independent of the power level of the first pulse; and

driving a recording unit by the multiple pulse train having the set power levels of the first and last pulses.

2. CANCELLED

3. (PREVIOUSLY PRESENTED) The method of claim 1, further comprising changing the power level of the multi-pulse depending on the energy of a non-return-to-zero inverted (NRZI) signal.

4. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the recording unit is a laser diode.

5. (CURRENTLY AMENDED) The method of claim 1, wherein the power level of the first pulse is set higher or lower than a reference power level.

6. (CURRENTLY AMENDED) The method of claim 1, wherein the power level of the first pulse is set depending on a correlation between a current mark and a previous space.

7. (CURRENTLY AMENDED) The method of claim 6, wherein the power level of the first pulse is set depending on the correlation between the current mark and the previous space or the size of the current mark.

8. (CURRENTLY AMENDED) The method of claim 1, wherein the power level of the first pulse is set depending on the size of a current mark.

9. (CURRENTLY AMENDED) The method of claim 1, wherein the power level of the last pulse is set higher or lower than a reference power level.

10. (CURRENTLY AMENDED) The method of claim 1, wherein the power level of the last pulse is set depending on the correlation between the current mark and a next space.

11. (PREVIOUSLY PRESENTED) The method of claim 9, wherein the power level of the last pulse is set depending on the correlation between the current mark and the next space or the size of the current mark.

12. (CURRENTLY AMENDED) The method of claim 1, wherein the power level of the last pulse is set depending on the size of the current mark.

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18. (PREVIOUSLY PRESENTED) A method of controlling recording a signal on an optical disc using multiple pulse trains comprising a first multi-pulse train having a first pulse, a multi-pulse having a reference power level, and a last pulse, the method comprising:

controlling the power level of said last pulse independent of the power level of said first pulse.

19. (PREVIOUSLY PRESENTED) The method according to claim 18, wherein the power levels of the first and last pulse are controlled by selecting a peak power level P_{wh} , a power P_{wl} higher than the peak power level P_{wh} , or power P_{wl} lower than the peak power level P_{wh} .

to be generated during the first and last pulses.

20. (PREVIOUSLY PRESENTED) The method according to claim 19, wherein P_w is an optimum peak power level and P_w and P_{w1} are generated by adding or subtracting a predetermined value to or from the optimum peak power level P_w , respectively.

21. (PREVIOUSLY PRESENTED) The method according to claim 18, wherein said multi-pulse reference power level is greater than said first pulse power level and less than said last pulse power level.

22. (PREVIOUSLY PRESENTED) The method according to claim 19, wherein said multiple pulse trains further comprises a second multi-pulse train having a first pulse, a multi-pulse having a reference power level, and a last pulse, wherein the power level of said multi-pulse of said second multi-pulse train is less than said first pulse power level of said second multi-pulse train and greater than said last pulse power level of said second multi-pulse train.

23. (PREVIOUSLY PRESENTED) The method according to claim 22, wherein said multiple pulse trains further comprise a third multi-pulse train having a first pulse, a multi-pulse having a reference power level, and a last pulse, wherein the power level of said multi-pulse of the third multi-pulse train is equal to said first pulse power level of said third multi-pulse train and great than said last pulse power level of said third multi-pulse train.

24. (CURRENTLY AMENDED) A method of controlling recording marks on an optical disc using multiple pulse trains comprising first, second and third multi-pulse trains each having a first pulse, a multi-pulse having a reference power level, and a last pulse, the method comprising:

providing a different reference power level to each multi-pulse train depending on the energy or density of a non-return-to-zero inverted (NRZI) signal detecting a correlation between a current mark and a space between successive marks.

25. (PREVIOUSLY PRESENTED) The method according to claim 24, wherein the power level of the first and last pulse of each of said first, second and third multi-pulse trains is higher or lower than said reference power level.

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26. (PREVIOUSLY PRESENTED) The method according to claim 18, wherein the power level of said multi-pulse is controlled independent of said first and last pulses.
